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SEP 27 2005

PATENT  
Docket No. 315.0001 0101

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): JANSSEN, Terrance E.	)	Group Art Unit:	3753	
Serial No.:	10/721,698	)	Examiner:	JOHN K. FORD
Confirmation No.:	6282	)		
Filed:	November 25, 2003	)		
		)		
For:	HEAT EXCHANGE APPARATUS, SYSTEM AND METHODS REGARDING SAME			

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DECLARATION OF PRIOR INVENTION TO OVERCOME  
CITED PATENT UNDER 37 C.F.R. §1.131

Commissioner for Patents  
Mail Stop Amendment  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Purpose of Declaration

This declaration is to establish and/or evidence the conception of the present invention prior to the effective date of the JP 2002-30717 reference (i.e., the publication date of 31 January 2002) coupled with due diligence from prior to the effective reference date (i.e., the publication date of 31 January 2002) to the filing date (i.e., 27 November 2002) of provisional application Serial No. 60/429,160 (e.g., constructive reduction to practice) to which the above-identified application claims priority. With the evidencing of such conception, diligence, and constructive reduction to practice, the JP 2002-30717 reference which has been cited against the above-identified application is removed as a reference.

This declaration is made by the sole inventor of the claims pending in the above-identified application, Terrance E. Janssen.

## DECLARATION UNDER 37 C.F.R. §1.131

Page 2 of 4

Serial No.:10/721,698

Confirmation No.: 6282

Filed: November 25, 2003

For: HEAT EXCHANGE APPARATUS, SYSTEM AND METHODS REGARDING SAMEFacts and Documentary Evidence

I, Terrance E. Janssen, state the following:

1. I am the sole named inventor of the above-identified application.
2. The claimed invention pending in the above-identified application was conceived in the United States prior to 31 January 2002, the publication date of the JP 2002-30717 reference. Attached as Exhibit A, is a document relating to this conception, wherein the document is as follows:

(A-1) A final design drawing completed in December 2001 using the office AutoCAD with the assistance of employee, Brian Urlaub.

3. Pursuant to this conception as evidenced above, from prior to 31 January 2002 (i.e., the publication date of the JP 2002-30717 reference) to the filing date (i.e., 27 November 2002) of provisional application (i.e., U.S. Serial No. 60/429,160), the Applicant for patent was diligent. The present application claims the benefit of the provisional application, U.S. Serial No. 60/429,160. Attached as Exhibit B, are a series of documents relating to this diligence.

(B-1) From January 7, 2002, I had numerous telephone conversations with John Lebo regarding manufacturing that portion of the invention that is inserted into the water main. Attached hereto as Exhibit B-1 is a copy of an e-mail dated June 28, 2002 to John Lebo who is the president of Doucette Manufacturing setting forth cost of manufacturing a part that is inserted into the municipal water main.

(B-2 through B-5) Commencing in January, 2002, I began exploring sites to reduce the invention to practice. In other words, it was necessary to get the cooperation of and the approval

## DECLARATION UNDER 37 C.F.R. §1.131

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Serial No. 10/721,698

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from entities who owned sites where the present invention could be reduced to practice. For example, such sites included water mains for real estate development, such as co-housing projects, where the water distribution system would be privately owned by an association of landowners, the developer or, other entity such as, North American Energy Co. (of which I was the sole shareholder, sole board member and chief executive officer). In connection therewith, to locate a place to reduce the invention to practice, attached as Exhibit B-2 is a letter to the University of Wisconsin-Milwaukee dated January 15, 2002; attached as Exhibit B-3 is an e-mail dated May 23, 2002 and an e-mail dated May 28, 2002 to Giles Blunden at Bolin Creek Cohousing; attached as Exhibit B-4 is an e-mail to Homestead Community Land Trust dated May 28, 2002 together with a document titled Notes/History; and attached as Exhibit B-5 is a document titled Notes/History as it pertains to Building Science Engineering, which is an engineering firm that designs co-housing projects.

(B-6) Attached hereto as Exhibit B-6 is a copy of an e-mail dated August 29, 2002 to the City of Burnsville. The City of Burnsville was involved in developing a "downtown" area of the city and in connection therewith I was hopeful that the concept of geothermal heating and cooling with heat exchangers on the municipal water main could be used. Subsequent to the e-mail there were additional communications with the City of Burnsville.

(B-7) Attached hereto as Exhibit B-7 is a copy of a letter dated November 4, 2002 pertaining to my speaking at a meeting of the Iowa Association of Municipal Utilities, the subject of which was the installation of heat exchangers on municipal water mains.

(B-8 thru B-9) From June, 2002 through November 27, 2002, I had meetings and telephone conversations with officials of the Minnesota Department of Health about approving the use of the present invention for attachment on municipal water mains in the State of Minnesota. Such approval was necessary before the present invention could be reduced to practice in a municipal

## DECLARATION UNDER 37 C.F.R. §1.131

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For: HEAT EXCHANGE APPARATUS, SYSTEM AND METHODS REGARDING SAME

water main. Attached as Exhibit B-8 is a draft of a letter to the Minnesota Department of Health dated November 29, 2002 referring to a November 27, 2002 meeting where oral approval of the invention for installation in municipal water mains was given. By letter dated December 21, 2003 addressed to Brian Noma, Public Health Engineer, Minnesota Department of Health (a copy of which is attached hereto as Exhibit B-9), reference was again made to the November 27, 2002 meeting and a request was made for written approval for installation of the invention on municipal water mains.

(B-10) Muscatine Power & Water and the City of Muscatine were interested in using municipal water mains for geothermal heating and cooling systems and in July, 2002. I met with the city Council members and management for Muscatine Power & Water. Attached as Exhibit B-10 is a copy of an e-mail that I received from Muscatine Power & Water on June 26, 2002 and forwarded on to John Lebo.

(B-11) After finalizing the design of the present invention, I had to locate the manufacturers of various parts required by the invention in order to go forward with reducing the invention to practice. Attached as Exhibit B-11 is a document entitled "Notes/History" for Groeber & Associates Inc. (which is a manufacturer of copper fittings) showing a contact on April 23, 2002.

4. The provisional application (i.e., U.S. Serial No. 60/429,160) of which the present application claims the benefit was filed on 27 November 2002, constructively reducing the invention to practice.

5. The evidence provided above establishes that the present invention was conceived prior to the effective date of the JP 2002-30717 reference (i.e., the publication date of 31 January 2002) and due diligence occurred from prior to the effective reference date (i.e., the publication date of 31 January 2002) to the filing date (i.e., 27 November 2002) of provisional application

## DECLARATION UNDER 37 C.F.R. §1.131

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Serial No.: 10/721,698

Confirmation No.: 6282

Filed: November 25, 2003

For: HEAT EXCHANGE APPARATUS, SYSTEM AND METHODS REGARDING SAME

Serial No. 60/429,160 (e.g., constructive reduction to practice) to which the present application claims priority. During this short period of time, the attorney also required time to prepare the provisional application to constructively reduce the invention to practice.

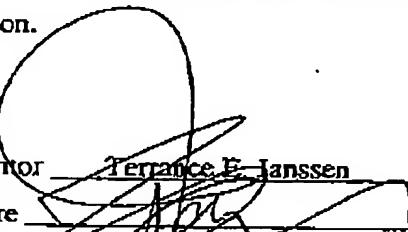
Time of Presentation of the Declaration

This declaration is submitted with the first response after non-final rejection and is for the purposes of overcoming the rejection.

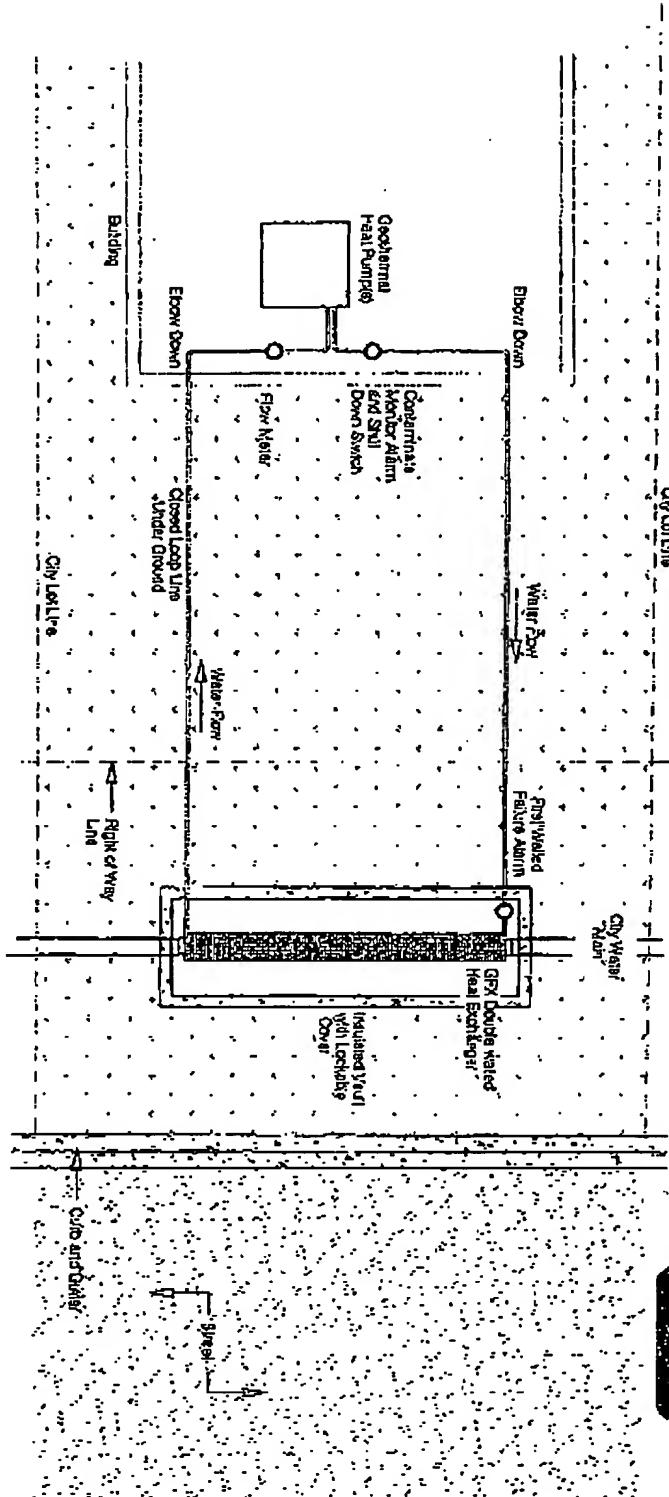
Declaration

As a person signing below:

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Inventor SignatureFull Name of Inventor Terrence E. JanssenInventor's Signature Date 9/26/05 Country of Citizenship USAResidence 252 Hermosa Drive St. Pete Beach, FL 33706Post Office Address St. Pete Beach, FL

**EXHIBIT A**  
**for**  
**DECLARATION OF PRIOR INVENTION**  
**TO OVERCOME CITED PATENT UNDER 37 C.F.R. §1.131**



EXHIBIT

A-1

**EXHIBIT B**

**for**

**DECLARATION OF PRIOR INVENTION**

**TO OVERCOME CITED PATENT UNDER 37 C.F.R. §1.131**

Terry Janssen

**From:** John Lebo <johnl@doucetteindustries.com>  
**To:** Terry E. Janssen (E-mail) <tjanssen@northamericanenergyco.com>  
**Cc:** Carmine Vasile (E-mail) <gfx-ch@msn.com>  
**Sent:** Friday, June 28, 2002 3:02 PM  
**Subject:** Our Q-12658

Terry,

Per your 6/26/02 phone request, we quote the following two models for your consideration to be used in conjunction with geothermal heat pumps.

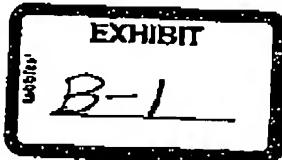
The "drain" pipe is made of Type L hard copper tubing. Type L is what's used in homes.

The water flow rate in the main is given for reference because that's what it balances out to be.

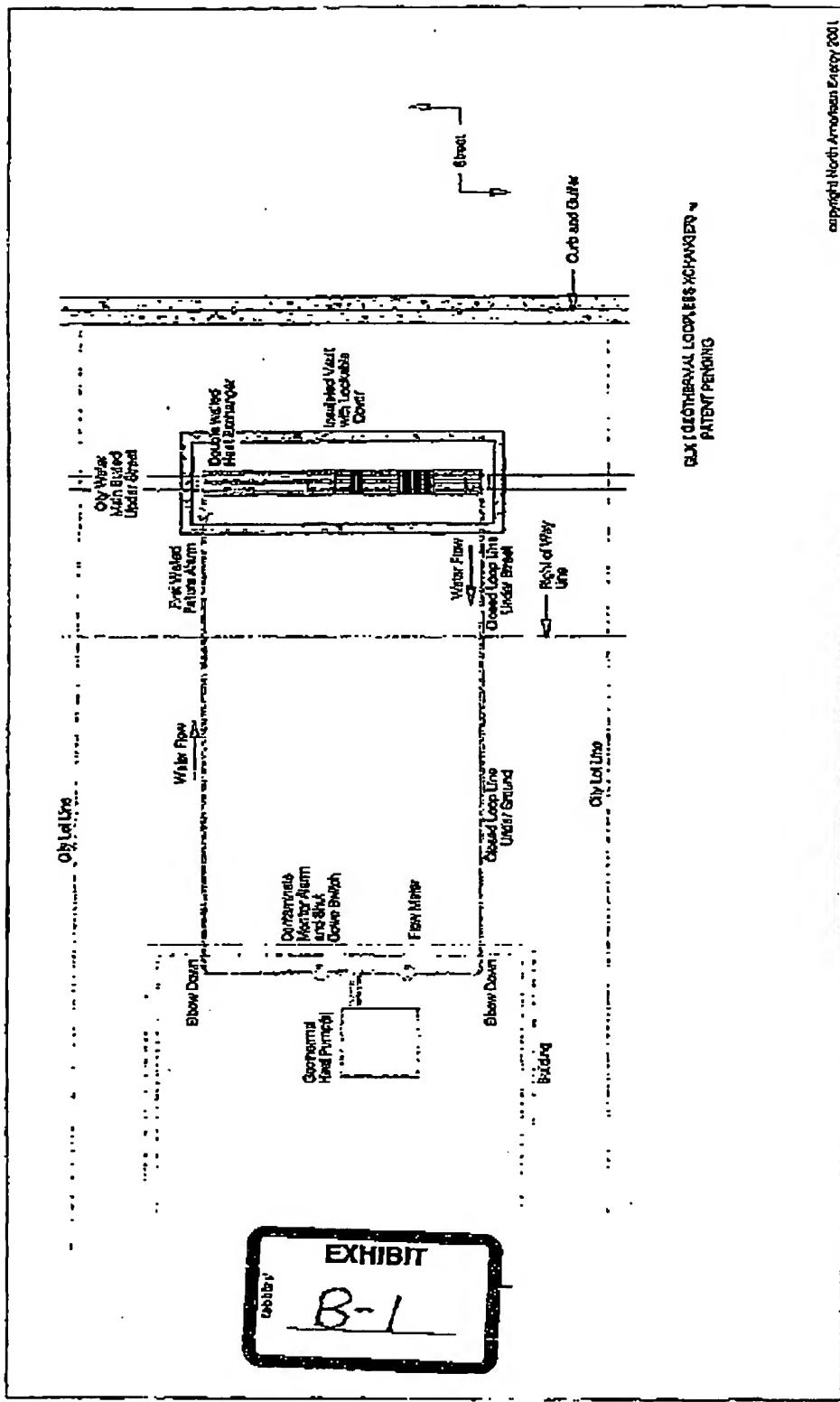
Loop GPM is based on a 10F split. Please advise with any questions. johnl

**A. Model: G6-60-3 (6 x 1)**  
 GFX Vented Double Wall Heat Exchanger  
 Perf: Cool 6.9 GPM of loop water from 80 to 70F, 5.1 psi PD  
 using 34.3 GPM of main water from 54 to 56F  
 Const: Type L hard large tube  
 Type L light annealed coil tubing  
 Manifolding Type L copper tubing  
 Fittings - standard refrigeration quality  
 Design: 150# DWP  
 Conn: 6-1/8" OD main  
 1-1/8" ID coil side manifold  
 Price: \$ 1,700.00 List each  
 Ship: 3-4 Weeks ARO  
 Terms: FOB York, PA / Net 30

**B. Model: G6-80-4 (6 x 1-1/4)**  
 GFX Vented Double Wall Heat Exchanger  
 Perf: Cool 9.2 GPM of loop water from 80 to 70F, 5.2 psi PD  
 using 46.2 GPM of main water from 54 to 56F  
 Const: Type L hard large tube  
 Type L light annealed coil tubing  
 Manifolding Type L copper tubing  
 Fittings - standard refrigeration quality  
 Design: 150# DWP  
 Conn: 6-1/8" OD main  
 1-3/8" ID coil side manifold  
 Price: \$ 2,250.00 List each  
 Ship: 3-4 Weeks ARO



5/28/02





# METROPOLITAN LAW CENTER, LTD.

*Formerly London Anderson Antolak & Hoeft, Ltd.*

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January 15, 2002

**VIA FACSIMILE**

Stanley J. Wrzeski Jr.  
University Of Wisconsin-Milwaukee  
PO Box 413  
Milwaukee, WI 53201

RE: North American Energy Co./ The Upland Project  
Our File No.: 21073.001

Dear Stanley:

Mr. Terry Janssen of North American Energy Co. asked me to respond to your recent inquiry about documents to be used in a potential agreement with the developers of The Upland Project in Sun Prairie, WI and North American Energy Co.

The documents are comparatively simple and straight forward. Each project is somewhat different so the documents are drawn separately to fit each situation, consequently there is no standard form that we can provide. Agreements that we have drafted for clients, in addition to being confidential, are proprietary and we do not distribute them unless in the context of work product for a client.

The specific document to be used for the above referenced project obviously has not been drafted however, the relevant agreements, among other things, would:

1. Provide for a liaison committee that would be appointed by and represent the property owners association on matters pertaining to the central geothermal system. In the event that North American and/or the system owner fails to provide the agreed to repair and maintenance, the property owners association would assume ownership of the system and use the monthly use fees and any remaining hook up charges to fund the operation of the central geothermal system. This provision would provide that North American would be entitled to recover its initial cost of installing the central system.
2. Provide for a deposit from the developer pursuant to North American's deposit schedule. It would also provide that the deposit would be refunded to the developer at the time the central system is installed and be forfeited if the owners proceed to the engineering phase and subsequently decide to abandon the project.

130 Anchor Bank Building • 14665 Galaxie Avenue • Apple Valley, MN 55124  
TELEPHONE 952.432.4400 • FACSIMILE 952.432.1301

Mr. Stanley Wrzeski, Jr.  
January 15, 2002  
Page 2

3. Provide that the developer would grant easements to the central system owner at the time engineering is complete and all facets of the system are agreed to between the developer, system owner and North American. The easements would, among other things:
  - A. Grant permission to the system owner and North American to install, maintain and repair the loop system and related supply and return pipe to each lot.
  - B. Describe the hook up charge and related monthly fees to be paid by each property owner that utilizes the central system.
  - C. Include the provisions mentioned in paragraph 1 above.
4. Set forth the obligations of North American and the developer with respect to the design and construction of the geothermal system.

North American forms a separate entity for each central system and has an agreement with the system owner to provide the engineering and installation of the system and subsequent management, maintenance and repair. North American in addition to its cost of engineering, material, labor and indirect overhead receives a construction management fee for the installation of the system and monthly management fee for maintenance.

If you have questions please call Mr. Janssen or myself.

Very truly yours,

METROPOLITAN LAW CENTER, LTD.

Laurence A. Anderson

LAA/mlb

cc: Dave Porterfield (via facsimile)



C:\Documents and Settings\Owner\My Documents\My Documents Laptop\My Documents\NAEV001 General Corporate\Uplands\Wrzeski Jr 011502.doc

From: Outlook Express::T.E.Janssen  
To: Blunden, Giles at Bolin Creek Cohousing  
Subject: Central Alternative Energy  
Date: 8:34 AM - 5/23/2002

Hi Giles

North American Energy Co. is involved in all types of Alternative Energy, geothermal, Wind Generation and photovoltaics. North American will consider installing any or all of the above systems with out cost to the development or developer. The development provides easements to North American to locate the central system and to run necessary connections to each dwelling unit. Usually we can locate our connections etc. in the same utility easements being provided to run other utilities. North American owns and operates the system similar to a utility which includes maintenance of the system in perpetuity. North American recaptures its investment and maintenance cost by charging each dwelling unit a hook up fee and monthly use fee.

Wind generation systems are many times difficult because of site location and related limitations, photovoltaics usually work in most locations but many times are still an economic struggle without grants, which we can many times obtain. Geothermal almost always works and is very attractive economically.

If North American owns and operates the central system it will make available its performance financing program for geothermal heating and air conditioning systems to each individual owner which systems are installed and serviced by its local dealer. If the individual owner contributes an initial dollar amount equal to what a conventional system would cost and pays an amount each month equivalent to what the conventional system utility bill would have been North American will finance the extra cost of geothermal systems and hook up fee. North American's pay back comes from the savings in utilities, when the extra cost is amortized out of the savings in utilities the owner gets the benefit of the reduced utility cost which can be a savings of 60% to 70% after the monthly use fee.

If you are going to consider our program it is very important that we get involved as early in the process as possible. North American requires that the developer or organization sign a no obligation letter of intent at which time we will prepare a written evaluation for your review. If you want to proceed after reviewing the evaluation we then enter in to a more formal agreement before we start the engineering.

If you would like me to send you a letter of intent for your review please contact me.

Thanks / Terry  
terry@aboutnac.com  
North American Energy Co.  
312 N. Main St.  
Stillwater, MN 55082  
Ph.651-275-3940 Fax 651-275-3932  
www.aboutnac.com



From: Outlook Express::T.E. Janssen  
 To: Blunden, Giles at Bolin Creek Cohousing  
 Subject: Central Alternative Energy Systems  
 Date: 4:45 PM - 5/28/2002

Hi Giles  
 Chris Scottanson asked me to forward this material to you.

**NORTH AMERICAN ENERGY CO. / CENTRAL ALTERNATIVE ENERGY SYSTEMS: GEOTHERMAL / WIND / PHOTOVOLTAICS / FUEL CELLS**

**PROVIDE:**  
 "An emission free friendly environment \* Low cost utilities \* Performance financing

North American/WaterFurnace/North American/Photovoltaics=North American / Wind  
 Expert design\*High quality state of the art equipment\*Professional installations\*Energy Financing

North American Energy Co. installs CENTRAL ALTERNATIVE ENERGY SYSTEMS at no cost to the developer. North American receives a hook up and monthly use fee from the individual building owners to provide perpetual maintenance to the central system and recover its investment cost. North American / WaterFurnace dealers are available to provide and install individual geothermal HVAC systems for each owner. Any HVAC geothermal system installed by North American / WaterFurnace dealers have performance financing available so each owner has the opportunity to pay the extra cost of geothermal out of utility savings.

**Note:**  
 See case study "BRITISH COLUMBIA" below. Other case studies "MOJAVE DESERT PROJECT" and "LAS VEGAS CENTRAL SYSTEMS PROJECT" are attached to this e-mail in PDF files.

#### SUN RIVERS COMMUNITY KAMLOOPS, B.C.

##### CANADA'S FIRST AND ONLY EXCLUSIVE GEOTHERMAL COMMUNITY

Sun Rivers Golf Resort Community is the first and only community in British Columbia that is entirely heated and cooled using WATERFURNACE geothermal heating and cooling systems.

Sun Rivers is situated on a spectacular 460-acre site overlooking the city of Kamloops and Thompson Valley. It will ultimately consist of 2000 homes integrated around a championship golf course. A resort hotel, village center, gift shops, office buildings and other facilities will make Sun Rivers one of the finest lifestyle communities in British Columbia. With its compact urban form and clustered approach to development,

Sun Rivers is uniquely appropriate for geothermal heating and cooling. "Geothermal is the ultimate system for the future and the way we are doing it saves money as we operate the utilities and installation costs are amortized over time," explained George Schurian, Sun Rivers President. "It makes absolute sense to utilize an entirely renewable energy source right in our own back yards."

This unique arrangement allows them to have better control over capital costs. In addition, they also own all of the geothermal loop systems and receive a monthly "access fee" from homeowners within the community. Homeowners benefit from this arrangement because they don't have to pay for the initial loop installation costs and can reap the benefits of geothermal's energy and cost savings starting from day one. "We are pleased to have chosen WATERFURNACE as our exclusive supplier of geothermal equipment," remarked Leslie Brochu, Sun Rivers Director of Marketing and Public Relations. "We chose WATERFURNACE because of its leading edge reputation, and its organization and support structure. They are well established and have the technical, training and support structure in place to help us be successful," she continued. "We were interested in a superior product and are quite confident that we have found this with WATERFURNACE." Sun Rivers has won over 30 housing and development awards over the past two years for their ENVIRONMENTAL EXCELLENCE.

"As energy costs continue to rise, we are proud to be recognized as being the industry leader in bringing consumers tremendous energy costs savings with an environmentally superior heating and cooling solution," stated Schurian. For more information on Sun Rivers, visit [www.sunrivers.com](http://www.sunrivers.com)

"Geothermal is the ultimate system for the future and the way we are doing it saves money...It makes absolute sense to utilize an entirely renewable energy source right in our own back yards."

EXHIBIT

B-3

From: Outlook Express::T.E. Janssen  
 To: [Homestead Community Land Trust]  
 Subject: Central Alternative Energy Systems  
 Date: 4:41 PM - 5/28/2002

Chris Scothanson asked me to forward this information.

**NORTH AMERICAN ENERGY CO. / CENTRAL ALTERNATIVE ENERGY SYSTEMS: GEOTHERMAL / WIND /  
 PHOTOVOLTAICS / FUEL CELLS**

**PROVIDE:**

"An emission free friendly environment "Low cost utilities "Performance financing

North American/WaterFurnace=North American/Photovoltaics=North American / Wind  
 Expert design+High quality state of the art equipment+Professional installations+Energy Financing

North American Energy Co. installs **CENTRAL ALTERNATIVE ENERGY SYSTEMS** at no cost to the developer. North American receives a hook up and monthly use fee from the individual building owners to provide perpetual maintenance to the central system and recover its investment cost. North American / WaterFurnace dealers are available to provide and install individual geothermal HVAC systems for each owner. Any HVAC geothermal system installed by North American / WaterFurnace dealers have performance financing available so each owner has the opportunity to pay the extra cost of geothermal out of utility savings.

**Note:**

See case study "BRITISH COLUMBIA" below. Other case studies "MOJAVE DESERT PROJECT" and "LAS VEGAS CENTRAL SYSTEM PROJECT" are attached to this e-mail in PDF files.

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**CANADA'S FIRST AND ONLY EXCLUSIVE GEOTHERMAL COMMUNITY**

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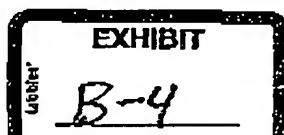
Sun Rivers is situated on a spectacular 460-acre site overlooking the city of Kamloops and Thomson Valley. It will ultimately consist of 2000 homes integrated around a championship golf course. A resort hotel, village center, gift shops, office buildings and other facilities will make Sun Rivers one of the finest lifestyle communities in British Columbia. With its compact urban form and clustered approach to development,

Sun Rivers is uniquely appropriate for geothermal heating and cooling. "Geothermal is the ultimate system for the future and the way we are doing it saves money as we operate the utilities and installation costs are amortized over time," explained George Schurian, Sun Rivers President. "It makes absolute sense to utilize an entirely renewable energy source right in our own back yards."

This unique arrangement allows them to have better control over capital costs. In addition, they also own all of the geothermal loop systems and receive a monthly "access fee" from homeowners within the community. Homeowners benefit from this arrangement because they don't have to pay for the initial loop installation costs and can reap the benefits of geothermal's energy and cost savings starting from day one. "We are pleased to have chosen WATERFURNACE as our exclusive supplier of geothermal equipment," remarked Leslie Brochu, Sun Rivers Director of Marketing and Public Relations. "We chose WATERFURNACE because of its leading edge reputation, and its organizational and support structure. They are well established and have the technical, training and support structure in place to help us be successful," she continued. "We were interested in a superior product and are quite confident that we have found this with WATERFURNACE." Sun Rivers has won over 30 housing and development awards over the past two years for their ENVIRONMENTAL EXCELLENCE .

"As energy costs continue to rise, we are proud to be recognized as being the industry leader in bringing consumers tremendous energy costs savings with an environmentally superior heating and cooling solution," stated Schurian. For more information on Sun Rivers, visit [www.sunrivers.com](http://www.sunrivers.com)

"Geothermal is the ultimate system for the future and the way we are doing it saves money...it makes absolute sense to utilize an entirely renewable energy source right in our own back yards."




**Notes/History**

T. E. "Terry" Janssen, My Record  
 35246 US Hwy 19  
 #316  
 actionmgt@comcast.net  
 Palm Harbor, FL 34684

**Contact:** Holiday Inn

Field Changed 2/4/2002 10:16 AM ID/Status - Hotel & Motel

**Contact:** Holiday Inn Airport (Intercoastal)

Field Changed 2/4/2002 10:15 AM ID/Status - Hotel & Motel

**Contact:** Holiday Inn Downtown

Field Changed 2/4/2002 10:16 AM ID/Status - Hotel & Motel

**Contact:** Holiday Inn Express

Field Changed 2/4/2002 10:17 AM ID/Status - Hotel & Motel

**Contact:** Holiday Inn Financial Plaza ( Holi...)

Field Changed 2/4/2002 10:31 AM ID/Status - Hotel & Motel

**Contact:** Holiday Inn Select

Field Changed 2/18/2002 1:04 PM ID/Status - Hotel & Motel

**Contact:** Holiday Isle

Field Changed 2/18/2002 1:04 PM Ed Kunkelazar

**Contact:** Home Depot

Field Changed 1/26/2002 4:15 PM Kathleen McCrory

**Contact:** Homestead Community Land T...

Field Changed 1/29/2002 2:42 PM ID/Status - Misc.  
 E-mail Sent 5/30/2002 8:27 AM Subject: Saving Energy  
 E-mail Sent 5/28/2002 4:41 PM Subject: Central Alternative Energy Systems  
 To-cc Done 5/28/2002 4:41 PM Send e-mail per Seethanson  
 Field Changed 5/25/2002 7:57 AM ID/Status - Alt. Energy App Dev Pros  
 Note 5/25/2002 7:53 AM Homestead Community Land Trust  
 1309 13th Ave. S.  
 Seattle, WA 98144  
 (206) 329-1227  
 homesteadcl@yahoo.com  
 www.scn.org/neighborslink

**Contact:** Homestead Village Guest Studios

Field Changed 2/18/2002 1:02 PM ID/Status - Hotel & Motel

**Contact:** Hope Town Marina -Club Soleil -

Field Changed 2/18/2002 1:02 PM ID/Status - Marinas

**Contact:** Hudson Engineering LLC

Trent Parago

Created 9/27/2005 at 7:29 AM

EXHIBIT

B-4

35



## Notes/History

T. E. "Terry" Janssen, My Record  
 35246 US Hwy 19  
 #376  
 actionmgf@comcast.net  
 Palm Harbor, FL 34684

Contact : **Builder Development Financing** Dick Swagman  
 Field Changed 1/30/2002 4:52 PM ID/Status - Alt Energy Financing

Contact : **Building Science Engineering** Mark Kelley  
 Field Changed 1/29/2002 2:44 PM ID/Status - Engineer Civil  
 Call Attempted 7/1/2002 8:54 AM Did he receive / Send e-mail per Scotchanson  
 E-mail Sent 8/16/2002 8:48 PM Subject Energy Saving Products  
 To-do Done 5/28/2002 5:18 PM Get Alberto contact info from Scotchanson  
 E-mail Sent 5/28/2002 4:50 PM Subject Central Alternative Energy Systems  
 To-do Done 5/28/2002 4:50 PM Send e-mail per Scotchanson  
 Note 5/25/2002 6:50 AM Thank you for calling. Please contact Mark Kelley and our architect about this project. The architect's name is Alberto Cardenas, of DMK architects in Boston. I have included contact information for each of them.  
 Field Changed 5/25/2002 6:17 AM ID/Status - Alt Energy App Dev Pros  
 Note 5/25/2002 6:09 AM beginvcard  
 version:3.0  
 fn:Mark Kelley  
 n:Kelley;Mark;  
 org:Building Science Engineering  
 adr:type=work;type=pref;:Boston, MA;  
 label:type=work;type=pref;:Boston, MA  
 tel:type=work;(978) 456-6950  
 tel:type=work;(978) 456-8080  
 email:type=home;type=pref;dragon@world.std.com  
 endvcard

Contact : **California Energy Commission** Sandy Miller  
 Field Changed 1/30/2002 4:58 PM ID/Status - Alt Energy Financing

Contact : **Capital One D 6457**  
 To-do Done 9/14/2002 9:12 AM Send a payment due on the 8th  
 To-do Done 8/5/2002 6:06 AM Send payment due on the 8th  
 To-do Done 7/27/2002 4:00 AM Send payment due on the 8th  
 To-do Done 6/16/2002 5:57 PM Send a payment due on the 8th  
 To-do Done 5/5/2002 12:00 PM Send payment due on the 8th  
 To-do Done 4/12/2002 2:00 AM Send payment due on the 8th  
 Field Changed 3/15/2002 6:03 PM Last Results - password 6453  
 To-do Not Done 3/8/2002 9:14 AM Send payment due on the 8th  
 Note 2/19/2002 4:01 PM Date: Tuesday, February 19, 2002  
 To: Bankruptcy Department  
 Capital One  
 Phone: 800-606-5227  
 Fax: 804-557-6347  
 From: T. E. Janssen  
 Phone: 651-275-3940

Created 9/19/2005 at 7:29 AM

We have completed one project of 33 homes and are working on a second project with a projected 45 town homes with a net density of about 10 units per acre.

EXHIBIT

B-5

From: Outlook Express: T.E. Janssen  
To: Tschumper, Judy at City Of Burnsville  
Subject: Water Main Heat Exchanger  
Date: 6:00 PM - 8/29/2002

Hi Judy  
Thanks for your time and interest. I will wait to here back from you.

Thanks / Terry  
tjanssen@northamericanenergyco.com  
North American Energy Co.  
312 N. Main St.  
Stillwater, MN 55082  
Ph. 651-275-3940 Fax 651-275-3932  
www.northamericanenergyco.com



11/04/02 13:34 FAX 515 288 2499

IAMU

02



IOWA  
ASSOCIATION OF MUNICIPAL  
UTILITIES

November 4, 2002

Terry Janssen  
North American Energy Company

Dear Terry:

Thank you for agreeing to speak at the 8th Annual IAMU Water and Wastewater Operators' Training Workshop. We have put together what we feel is an impressive selection of speakers and topics. Water and wastewater operators should have some valuable training opportunities available to them through these selected presentations.

As you can see on the enclosed workshop agenda, your presentation, *Using Potable Water in Heat Exchangers*, is scheduled for 11:00 a.m. on Wednesday, November 13, 2002. We plan on the session lasting one hour. If there are questions or concerns with the time at which the session is scheduled, please let me know. I am also available if you wish to discuss the content of information to present or the size and background of the audience to whom you will be speaking.

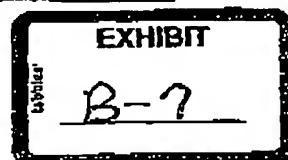
Also enclosed is a speaker information form on audio visual needs and a biography. Please complete this information and fax (515/288-2499) or mail it back to me ASAP.

We are looking forward to another successful IAMU Operator Training Workshop. Last year, in the seventh year of the workshop, we had over 200 attendees. We hope for an even greater turnout this year. If you have any questions or suggestions about the workshop, please feel free to call me at 515/289-1999. Otherwise, I look forward to seeing you in November.

Sincerely,

Karen Nachman  
Water Services Coordinator

1735 1/2 JUIN AVENUE  
ANKENY, IOWA 50321-9253  
515/289-1999  
FAX: 515/289-2499



# WATER AND WASTEWATER OPERATORS' TRAINING WORKSHOP

November 13, 2002

## WEDNESDAY MORNING

	Water Treatment Salon A & B North	Water Distribution Bennigans East & West REGISTRATION	Wastewater Wisconsin
8:00 a.m.			
8:30 a.m.	wt <b>Filter Maintenance and Troubleshooting</b> Les Uhlmeyer US Filter A review of routine maintenance for filters.	wd <b>Dechlorinating Potable Water in Distrib. Systems</b> Jeff Fischer Fischer, Harris & Assoc. Learn about techniques for dechlorination.	ww <b>Vacuum Sewer Systems</b> Todd Olson Airvac Inc. Debra Leigh <b>Leigh Environmental Equip.</b> Learn about this technology.
9:30 a.m.	wt <b>Ammonia and Groundwater Issues</b> Mike Wade IDNR Learn how ammonia may be affecting your system.	wd <b>Backflow Prevention</b> Michael Magnant IA Dept. of Public Health An overview of the rules, programs and devices.	ww <b>Phosphorus Issues</b> Ubbo Agena IDNR Learn about the new standards and impacts.
10:30a.m. <b>REFRESHMENT BREAK -- SPONSORED BY: EMC INSURANCE</b>			
11:00 a.m.	wt <b>Nitrate Removal</b> Neal Kuehl Kuehl & Payer Ltd. Learn about nitrate removal facilities in Iowa.	wd <b>Using Potable Water in Heat Exchangers</b> John Root - Muscatine Roy Ney - IDNR Dave Kalkwarf - Marion Terry Janssen - North American Energy Co.	ww <b>Water Quality Standards</b> Ralph Turkle IDNR Learn about upcoming changes in water quality standards.
Noon	<b>LUNCH</b> (Lunch provided for workshop attendees in Salons B & C)		

NOTE: wt - water treatment CEUs      wd - water distribution CEUs      ww-wastewater CEUs



EXHIBIT

B-7

Water & Wastewater Operator's Training Workshop  
November 12 - 14, 2002

## SPEAKER LIST

Ubbo Agena  
*Iowa Department of Natural Resources*  
Wallace Building  
Des Moines, IA 50319  
Phone: 515/281-6402  
Fax: 515/281-8895  
ubbo.agena@dnr.state.ia.us

Ken Barber  
*Telemetric*  
9941 W. Emerald  
Boise, ID 83704  
Phone: 208/658-1292  
Fax: 208/323-5575  
telemetr@mindspring.com

Mark Bortle  
*Iowa DOT*  
800 Lincoln Way  
Ames, IA 50010  
Phone: 515/239-1587  
Fax: 515/239-1845  
mark.bortle@dot.state.ia.us

Patti Cale-Finnegan  
*IAMU*  
1735 NE 70th Ave  
Ankeny, IA 50021  
Phone: 515/289-1999  
Fax: 515/289-2499  
pcale@iamu.org

Heath Casteel  
*Performance Pipe*  
5461 N. East River Road #1102  
Chicago, IL 60656  
Phone: 773/551-7792  
Fax: castehw@cpchem.com

Kristin Clay  
*Test America*  
704 Enterprise Drive  
Cedar Falls, IA 50613  
Phone: 800/750-2401  
Fax: 319/277-2425

Ken Deacon  
*Environmental Protection Agency*  
901 N. 5th St  
Kansas City, KS 66101  
Phone: 913/551-7585  
Fax: 913/551-7585  
Deacon.ken@epamail.epa.gov

Jeff Fischer  
*Fischer, Harris & Associates*  
2715 Meadow Drive  
St. Charles, IL 60175  
Phone: 800/224-7579  
Fax: 800/796-9357

Steve Gearhart  
*Municipal Pipe Tool*  
PO Box 398  
Hudson, IA 50643  
Phone: 319/988-4205  
Fax: 319/988-3506

Bob Goldhammer  
*Polk County Emergency Management Agency*  
111 Court Ave  
Des Moines, IA 50309  
Phone: 515/286-2107  
Fax: 515/323-5256  
polk.county@emd.state.ia.us

Todd Hayes  
*United Rentals Trench Safety*  
3322 Nebraska Ave.  
Council Bluffs, IA 51501  
Phone: 712/322-3250  
Fax: 515/986-5945

Terry Janssen  
*North American Energy Company*  
312 N. Main Street  
Stillwater, MN 55082  
Phone: 651/275-3940  
Fax: 651/275-3932  
tjanssen@northamericanenergyco.com

Dave Kalkwarf  
*Marion Municipal Water Department*  
10 8th Ave  
Marion, IA 52302  
Phone: 319/377-4839  
Fax: 319/377-7892  
dave@waterdept.ci.marion.ia.us

Neal Kuehl  
*Kuehl & Pcyor*  
1725 N. Lake Ave.  
Storm Lake, IA 50588  
Phone: 712/732-7745  
Fax: 712/732-6293  
kuehlnr@kpltd.com

Debra Leigh  
*Leigh Environmental Equipment*  
10838 Old Mill Road Suite A  
Omaha, NE 68154  
Phone: 402/330-2844  
Fax: 402/330-2813  
debraleigh@qwest.net

Draft 11-29-02

Minnesota Department of Health

This letter is written on behalf of North American Energy Co., to request approval by the Minnesota Department of Health to insert a heat exchanger known as the GLX for into municipal water mains within the State of Minnesota (there is a patent pending on the GLX heat exchanger).

The GLX heat exchanger is a double wall copper pipe with a closed loop of copper pipe surrounding it. A section of the city water main would be cut and replaced by the heat exchanger, thereby allowing the city water supply to flow through the heat exchanger. The GLX heat exchanger allows for the flow of a fluid from the heat pump through a close loop line conduit to the heat exchanger and after passing through the heat exchanger the fluid flow then returns to the geothermal heat pump. The fluid in the closed loop line does not mix with water flowing in the water main. A photograph of the heat exchanger accompanies this letter.

The section of the water main where the heat exchanger is attached will be encased in an insulated vault with a locking mechanism to allow restricted access into the vault to service the heat exchanger.

Enclosed with this letter is a drawing showing a geothermal system with a closed conduit loop line from the geothermal heat pump to the GLX heat exchanger within the loop line, the GLX heat exchanger being attached to the city water main by insertion into it.

Based upon our meeting on Nov. 27, 2002 it is our understanding that the approval of the Minnesota Department of Health will be subject to installation plan review for each project by the Minnesota Department of Health and the approval of other interested governmental bodies, including, but not limited to, the affected municipality.

We understand that any approval of the GLX heat exchanger will not constitute an endorsement of that product by the Minnesota Department of Health.

Please accept this letter as a request to approve the GLX heat exchanger for insertion into municipal water mains, subject to such qualifications as the Minnesota Department of Health deems necessary to ensure a safe water supply.

North American Energy Co. is most anxious to obtain the approval of the Minnesota Department of Health because, as we have discussed, there is considerable interest by municipalities in the use of the GLX heat exchanger for projects within their respective municipalities. Your efforts to expedite the approval will be appreciated.

We look forward to hearing from you.



**Laurence A. Anderson**  
ATTORNEY AT LAW

December 21, 2003

Brian Noma  
Public Health Engineer  
Minnesota Department of Health, Suite 220  
St. Paul MN 55164

Dear Mr. Noma:

On November 27, 2002, Terry Janssen and I met with you and Chad Kolstad for the purpose of obtaining the approval of the Minnesota Department of Health for the installation of a double walled heat exchanger (referred to in this letter as the "GLX") into municipal water mains. Terry and I left that meeting with the understanding that the Minnesota Department of Health would provide a letter of approval for the installation of the GLX into municipal water mains. However, prior to issuing that letter of approval you asked us to send to you a letter describing the GLX. Hopefully this letter contains the information that you need.

We also understand from what you told us in that meeting that approval by the Minnesota Department of Health will be subject to installation plan review for each project by the Minnesota Department of Health and the approval of other interested governmental bodies, including, but not limited to, the affected municipality. We also understand that approval by the Minnesota Department of Health does not constitute an endorsement of the GLX.

The product description for the GLX (for which a patent is pending) is as follows. The GLX is a double walled heat exchanger. The GLX has an inner pipe made of copper (through which the city water will flow) which will have a PSI rating at least equal to that of domestic water plumbing code requirements. The inner pipe is wrapped by a coiled pipe made of copper through which a heat transfer fluid of water and food grade glyco will flow from the GLX to and through the heat pump and then return to the GLX (the "Closed Loop"). A side view and end view of the GLX is shown on Exhibits A, B, Fig. 1 and Fig. 2 enclosed with this letter. Both the inner pipe and the Closed Loop are made of Type L hard copper.

The heat transfer fluid and the water from the water main do not mix. A failure of either the inner pipe or the Closed Loop will not result in a cross connection with, or permit back siphonage of the heat transfer fluid into the municipal water system.

Referring to the diagram that is enclosed as Exhibit C, the Closed Loop is attached at one end to the heat pump (located within the building) at two points, one being a fluid inlet (with a flow meter attached thereto), and the other a fluid outlet (with shut down switch

P.O. Box 240357 \* Apple Valley, MN 55124  
TELEPHONE: 952.997.6677 \* FACSIMILE: 952.997.6545

EXHIBIT

B-9

to monitor leaks and to shut down the apparatus if a leak is detected). The fluid within the Closed Loop is moved within the Closed Loop by a pumping means at or in the geothermal heat pump. The pressure of the heat transfer fluid in the Closed Loop will be maintained at a ten (10) to fifteen (15) PSI which is less than that of the water flowing through the water main.

The Closed Loop contains a heat transfer fluid that is food grade and ecologically safe. Normally the heat transfer fluid in the Closed Loop will be a water and glycol mixture but it could be a refrigerant that is either R22 or R410. If a refrigerant is used it boils at -40.8 degrees centigrade and thus would be in a gaseous state as it travels through the Closed Loop. Consequently, the refrigerant cannot mix with the water.

As shown in Exhibit C, the section of the water main where the GLX will be attached is encased in an insulated vault with a locking access cover constructed so as to allow restricted access into the vault to service the heat exchanger or the water main to which it is attached. The bottom of the vault will consist of gravel. Within the vault, and attached to the outlet of the Closed Loop, there is a first walled failure alarm so that any failure in the system at that point would be detected, allowing for the shutting down of the apparatus and servicing and repair in the vault area. If there is a failure of the GLX's inner pipe or the Closed Loop, the potable water or the heat transfer fluid, as the case may be, will be discharged into the vaulted area. No hazards will be created by such a discharge.

Please accept this letter as a request for the written approval of the Minnesota Department of Health for the insertion GLX into municipal water mains, subject to such installation procedures as the Minnesota Department of Health deems necessary to ensure a safe water supply.

Geothermix, LLC is most anxious to obtain the approval of the Minnesota Department of Health because there is considerable interest by municipalities in the use of the GLX for projects within their respective municipalities. Your efforts to expedite the letter of approval will be appreciated.

We look forward to hearing from you.

Sincerely:

  
Laurence A. Anderson

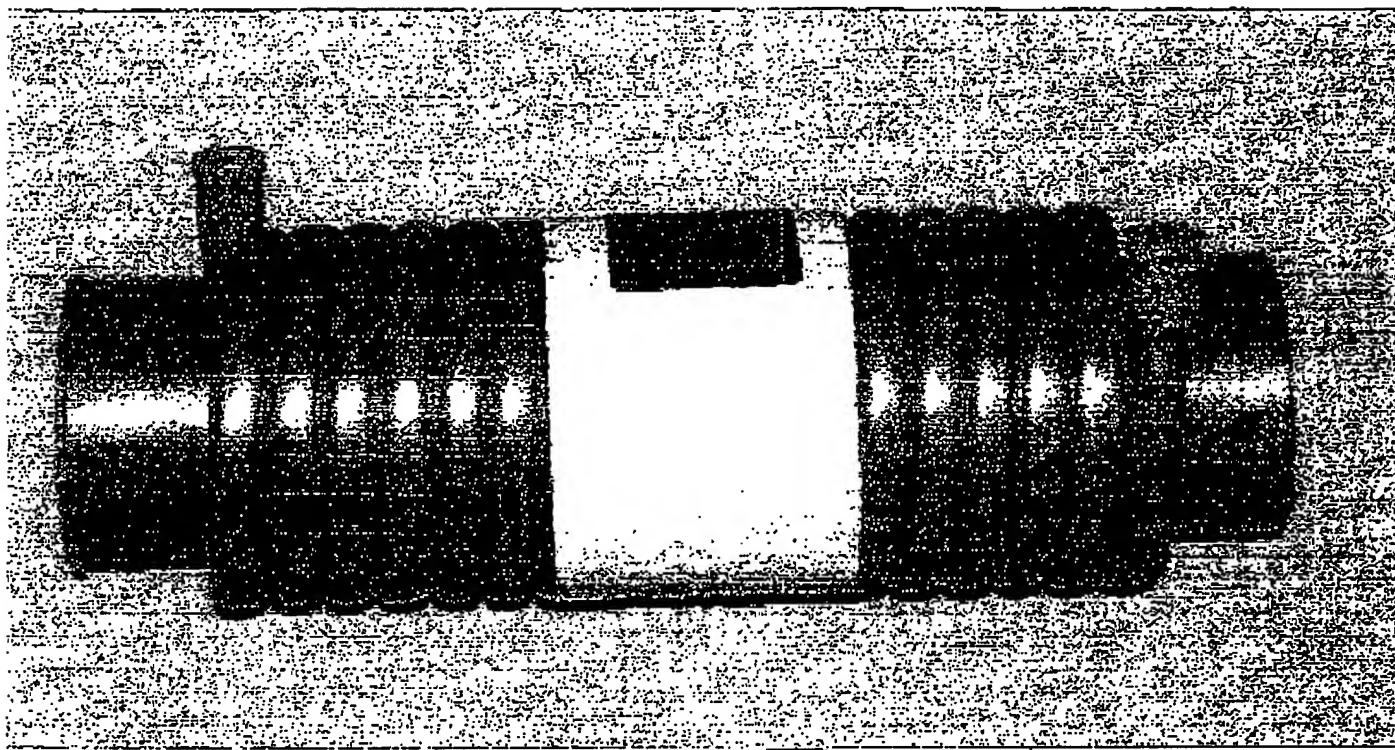
Enclosure:

CC: T. E. Janssen

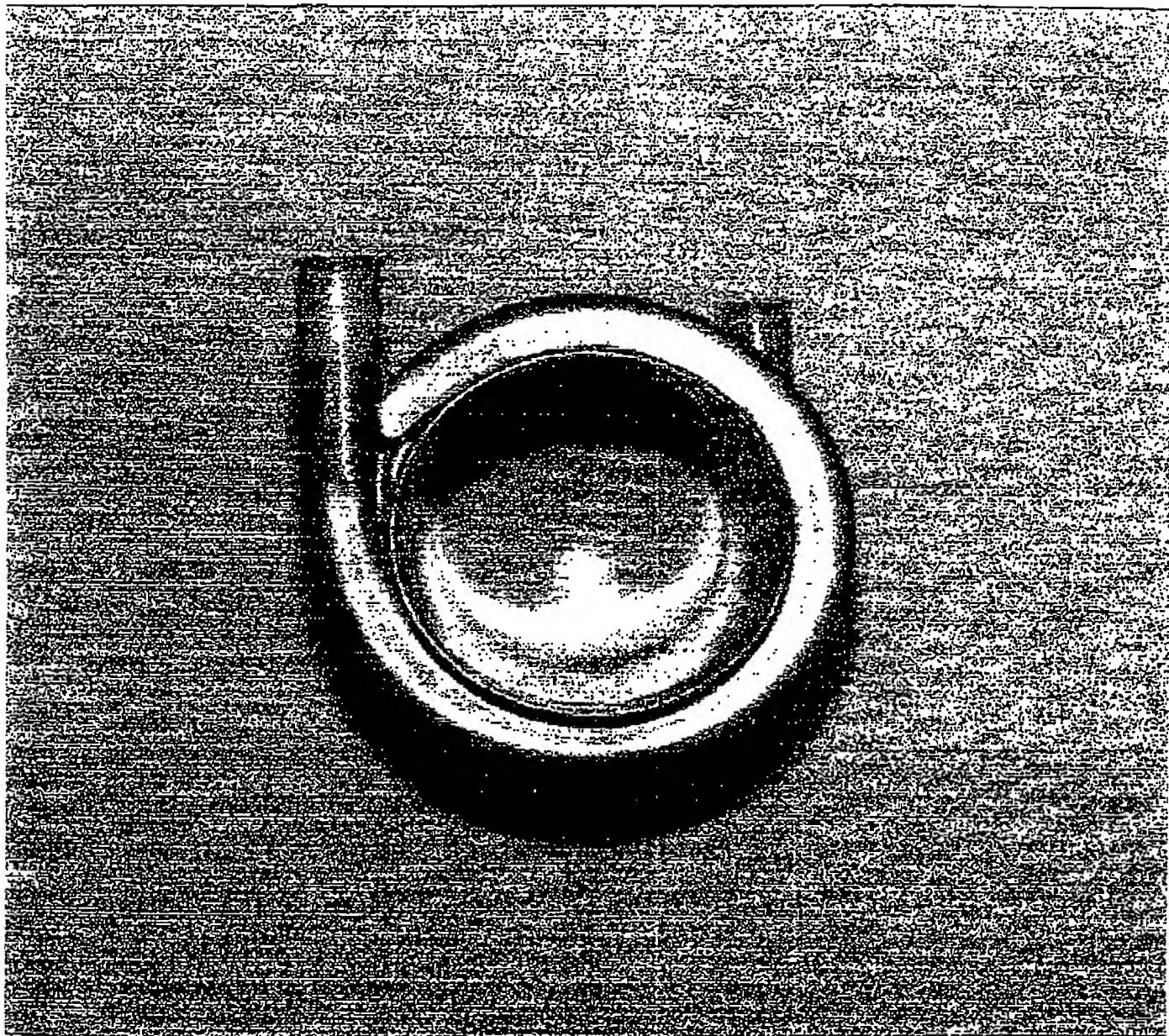
P.O. Box 240357 \* Apple Valley, MN 55124  
TELEPHONE: 952.997.6677 \* FACSIMILE: 952.997.6545



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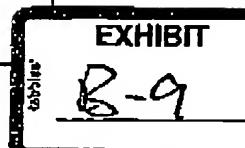
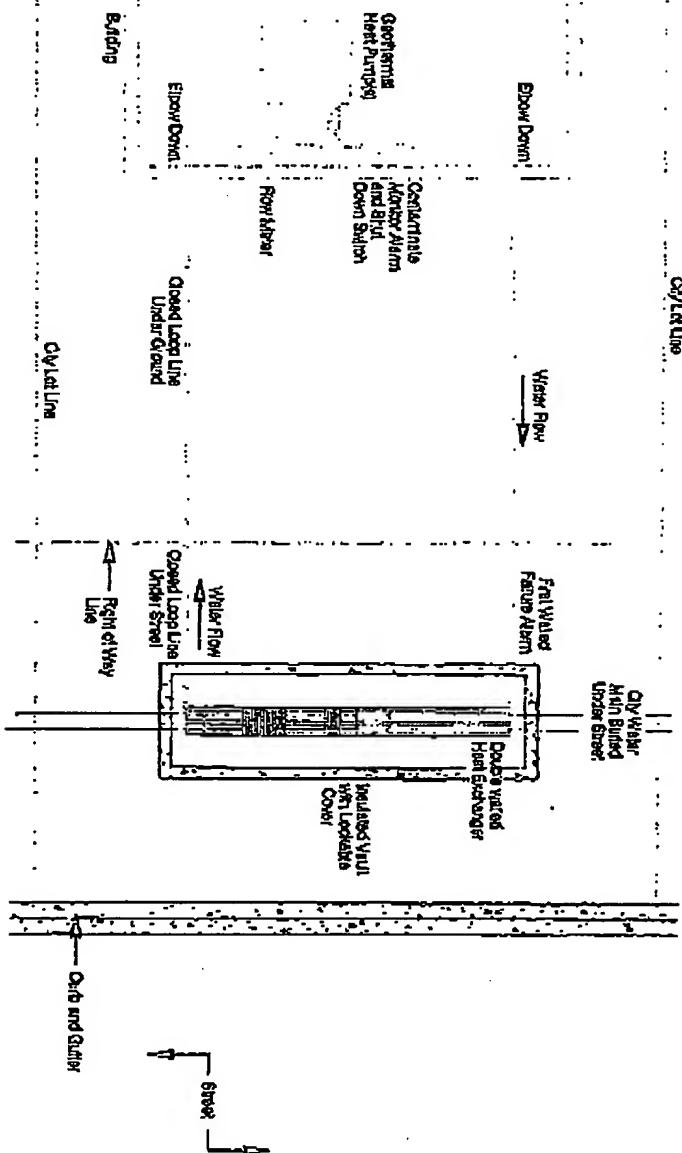
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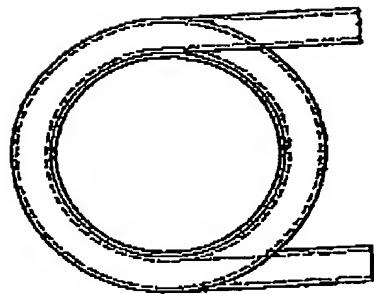


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PATENT PENDING

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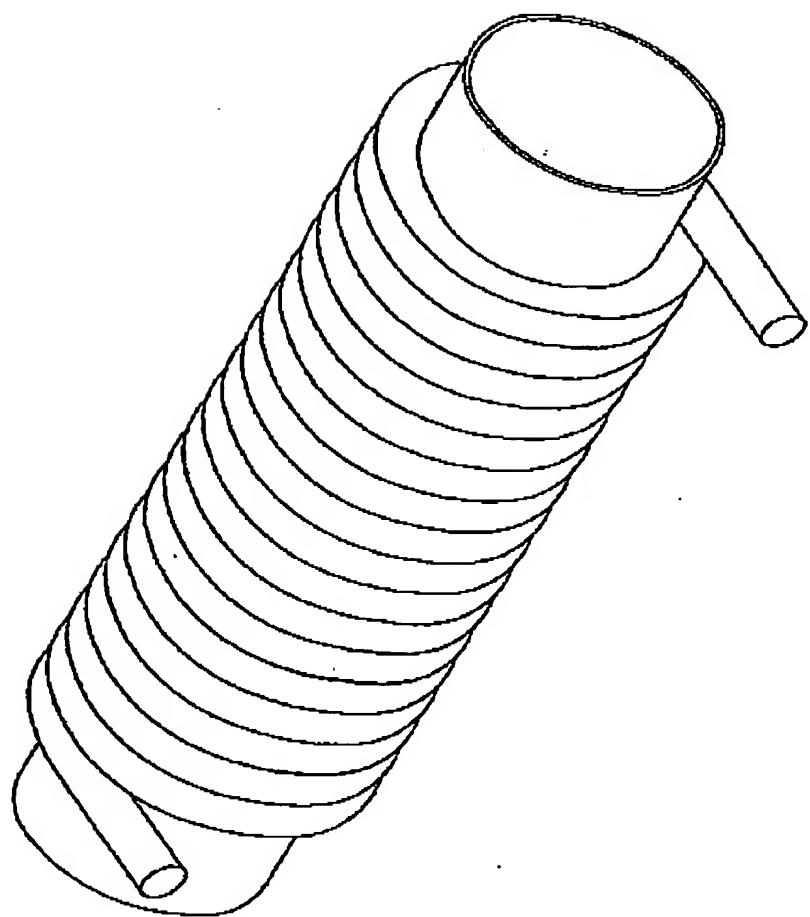
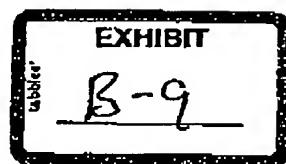


Fig. 1



From: Outlook Express: T.E. Janssen  
To: Lebo, John at Doucette Industries Inc. GFX  
Subject: E-mail copy  
Date: 9:11 AM - 8/26/2002

Hi John  
Below is an e-mail I just received from Muscatine Power & Water.

Thanks / Terry  
tjanssen@northamericanenergyco.com  
North American Energy Co.  
312 N. Main St.  
Stillwater, MN 55082  
Ph. 651-275-3940 Fax 651-275-3932  
[www.northamericanenergyco.com](http://www.northamericanenergyco.com)

Hi Terry:  
I met the fellow who wrote the e-mail which is attached below at MREF. He seems to be connected in Wisc. and interested in using the municipal water infrastructure as a energy source for a ground source heat pump.

I thought you might want to contact Bill. Perhaps we can work as a team to promote this technology.

John R. Root  
Muscatine Power & Water  
Energy Services Advisor  
3205 Cedar St  
Muscatine, IA 52761  
Phone: 563/262-3354  
Fax 563/262-3345  
e-mail (W): [jroot@mpw.org](mailto:jroot@mpw.org)  
Webpage: [mpw.org/energy.htm](http://mpw.org/energy.htm)

EXHIBIT

B-10



## Notes/History

T. E "Tony" Janssen, My Record  
 35245 US Hwy 19  
 #316  
 actionmgt@comcast.net  
 Palm Harb., FL 34584

Field Changed	2/18/2002	1:06 PM	ID/Status - WFL-Disputes ALAC/Harris
<b>Contact :</b> Greystone Management			
To-do Done	5/22/2002	5:31 AM	Lease expires 10/31 ? / Check file to see if we have to do anything
To-do Done	5/14/2002	6:00 AM	\$500 + \$475 due on 1st beginning 10/01
To-do Done	4/2/2002	8:00 PM	\$500 + \$475 due on 1st beginning 10/01
To-do Not Done	3/30/2002	2:49 PM	Lease expires 5/31
To-do Done	3/8/2002	9:14 AM	\$500 + \$475 due on 1st beginning 10/01
To-do Done	2/3/2002	1:18 PM	\$500 + \$475 due on 1st beginning 10/01
To-do Done	1/23/2002	6:47 PM	\$500 + \$475 due on 1st beginning 10/01
To-do Done	1/17/2002	6:29 PM	\$500 + \$475 due on 1st beginning 10/01
<b>Contact :</b> Greystone Management			
To-do Done	5/5/2002	8:48 PM	Send Check \$1,500
To-do Done	5/5/2002	6:26 AM	Send Check \$1,500
To-do Done	7/2/2002	8:30 AM	Send Check \$1,500
To-do Done	5/28/2002	3:03 PM	Finalize lease / Check exp date
To-do Done	5/28/2002	2:30 PM	Send Check \$1,500
To-do Done	5/5/2002	4:56 PM	Send Check \$1,500
To-do Done	4/3/2002	8:00 AM	Send Check
Call Completed	3/11/2002	6:55 PM	Discuss lease
Call Completed	3/9/2002	8:00 AM	change residence lease
To-do Done	2/20/2002	8:32 PM	change residence lease / Meeting with Roger
Meeting Held	2/1/2002	3:00 PM	Meeting on space / counter proposal meet at electric shop
Call Completed	1/31/2002	3:55 PM	Proposal
Call Completed	1/23/2002	6:45 PM	Look at light fixture facility
Call Completed	1/18/2002	5:11 PM	Look at light fixture facility
Meeting Held	1/11/2002	9:30 AM	Look at light fixture facility
<b>Contact :</b> Groebner & Associates Inc.			
Field Changed	11/30/2002	4:16 PM	ID/Status - Suppliers Loop System
Field Changed	11/30/2002	4:10 PM	ID/Status - Suppliers Loop System
Field Changed	11/30/2002	3:53 PM	ID/Status - Supplier Loop System
Field Changed	11/30/2002	3:45 PM	ID/Status - WFSL-Supplier Loop System
Call Left Message	5/16/2002	12:24 PM	Any type of fitting for HDPE to Copper
Call Completed	4/23/2002	4:54 PM	Any type of fitting for HDPE to Copper
Field Changed	4/17/2002	7:27 AM	ID/Status - WFSG-Suppliers Geo
<b>Contact :</b> Gulf Coast Marine Electric Inc.			
Field Changed	11/30/2002	1:05 AM	Ray Howerton
Field Changed	2/18/2002	1:05 PM	ID/Status - Aq. / Maint. / Items / Boat
<b>Contact :</b> Gulf Harbour Yacht & Country C...			
Field Changed	2/18/2002	1:05 PM	Perry Hodell
<b>Contact :</b> Gulfstream International Airlines			
			Troy UnHjem

Created 9/19/2005 at 7:29 AM

32

